



# SLOVENSKI STANDARD

## SIST EN 62561-1:2012

01-julij-2012

Nadomešča:  
SIST EN 50164-1:2008

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**Elementi za zaščito pred strelo (LPSC) - 1. del: Zahteve za spojne komponente (IEC 62561-1:2012, spremenjen)**

Lightning Protection System Components (LPSC) - Part 1: Requirements for connection components

Blitzschutzsystembauteile (LPSC) - Teil 1: Anforderungen an Verbindungsbauteile

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Composants de systèmes de protection contre la foudre (CSPF) - Partie 1: Exigences pour les composants de connexion [SIST EN 62561-1:2012](https://standards.iteh.ai/catalog/standards/sist/d3d7f8cc-107c-4de9-a185-0badf0feb23d/sist-en-62561-1-2012)

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**Ta slovenski standard je istoveten z: EN 62561-1:2012**

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**ICS:**

91.120.40      Zaščita pred strelo      Lightning protection

**SIST EN 62561-1:2012**      **en**

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EUROPEAN STANDARD

**EN 62561-1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2012

ICS 29.020; 91.120.40

Supersedes EN 50164-1:2008

English version

**Lightning Protection System Components (LPSC) -  
Part 1: Requirements for connection components**  
(IEC 62561-1:2012, modified)

Composants des systèmes de protection  
contre la foudre (CSPF) -  
Partie 1: Exigences pour les composants  
de connexion (CEI 62561-1:2012,  
modifiée)

Blitzschutzsystembauteile (LPSC) -  
Teil 1: Anforderungen an  
Verbindungsbauteile  
(IEC 62561-1:2012, modifiziert)

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This European Standard was approved by CENELEC on 2012-03-16. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

# CENELEC

European Committee for Electrotechnical Standardization

Comité Européen de Normalisation Electrotechnique

Europäisches Komitee für Elektrotechnische Normung

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 81/416/FDIS, future edition 1 of IEC 62561-1, prepared by IEC/TC 81, "Lightning protection", was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62561-1:2012.

A draft amendment, which covers common modifications to IEC 62561-1 (81/416/FDIS), was prepared by CLC/TC 81X "Lightning protection" and approved by CENELEC.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-03-16
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-03-16

This document supersedes EN 50164-1:2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 62561-1:2012 are prefixed "Z".

### Endorsement notice

The text of the International Standard IEC 62561-1:2012 was approved by CENELEC as a European Standard with agreed common modifications.

## COMMON MODIFICATIONS

### Whole document

**Replace** all references to IEC 62305 by references to EN 62305.

**Replace** all references to IEC 62561 by references to EN 62561.

### 4 Classification

After 4.2, **add** the following:

**4.Z1** Classification is also made according to its mechanical behaviour for connectors:

- a) declared to withstand static mechanical load 900 N;
- b) not intended to carry static mechanical load.

### 6 Tests

**Replace** the whole 6.4 by the following:

#### 6.4 Static mechanical test

##### 6.4.Z1 General

The static mechanical test is specifically applicable to the configurations B2/B3/B7 as shown in Annex B. For other applications, it is neither practical nor necessary to carry out static mechanical tests and is therefore not a requirement. For specific applications such as connectors embedded in concrete, it is not required to carry out mechanical tests.

The test shall be performed with all conductor materials permitted according to the manufacturer's declaration. To minimize the number of tests, connectors that are used with several different conductor materials shall be performed using stainless steel.

Any connector with a connection range equal to or less than 2 mm shall be tested on the minimum conductor size recommended. If the connection range is greater than 2 mm it shall be tested on the minimum and maximum size of conductor recommended.

##### 6.4.Z2 Test procedure

A second set of 3 new connectors shall be arranged according to the manufacturer's or supplier's installation instructions with the recommended conductor materials, sizes and tightening torques.

Each conductor of the specimen assemblies shall be subjected independently to a mechanical tensile force of  $900\text{ N} \pm 20\text{ N}$  for 1 min.

The connection component is deemed to have passed the test if there is less than 1 mm movement of the conductor during the test and no damage on the connector or conductor.

### Annexes

#### Annex C (normative) Conditioning/ageing for connection components

In C.1, **replace** twice "IEC 60068-2-52:1996" by "EN 60068-2-52:1996".

Add the following new annexes:

## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

| <u>Publication</u>             | <u>Year</u>  | <u>Title</u>   | <u>EN/HD</u>  | <u>Year</u> |
|--------------------------------|--------------|--|---------------|-------------|
| IEC 60068-2-52<br>+ corr. July | 1996<br>1996 | Environmental testing -<br>Part 2: Tests - Test Kb: Salt mist, cyclic (sodium<br>chloride solution)            | EN 60068-2-52 | 1996        |
| IEC 62305-1                    | -            | Protection against lightning -<br>Part 1: General principles   | EN 62305-1    | -           |
| IEC 62561-2                    | -            | Lightning Protection System Components (LPSC) -<br>Part 2: Requirements for conductors and earth<br>electrodes | EN 62561-2    | -           |
| ISO 6957                       | 1988         | Copper alloys - Ammonia test for stress corrosion<br>resistance  | -             | -           |
| ISO 6988                       | 1985         | Metallic and other non-organic coatings - Sulfur<br>dioxide test with general condensation of moisture         | EN ISO 6988   | 1994        |

**Annex ZB**  
(informative)

**Identification and differences of tests  
between EN 62561-1:2012 and EN 50164-1:2008**

**Table ZB.1 – Identification and differences of tests  
between EN 62561-1:2012 and EN 50164-1:2008**

| <b>Test description</b> | <b>EN 62561-1:2012</b> | <b>EN 50164-1:2008</b> | <b>Deviations / Remarks</b>             |
|-------------------------|------------------------|------------------------|---|
| Test preparation        | 6.2                    | 6.2                    | None                                    |
| Electrical test         | 6.3                    | 6.3                    | Yes for screwless connection components |
| Static mechanical test  | 6.4                    | –                      | Yes                                     |
| Marking test            | 6.5                    | 6.4                    | None                                    |

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## Bibliography

**Add** the following references:

EN 62305-3, *Protection against lightning – Part 3: Physical damage to structures and life hazard (IEC 62305-3)*

EN 62305-4, *Protection against lightning – Part 4: Electrical and electronic systems within structures (IEC 62305-4)*

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Edition 1.0 2012-02

# INTERNATIONAL STANDARD

Lightning protection system components (LPSC) –  
Part 1: Requirements for connection components

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